

# Notice of Allowability

Application No.

10/602,405

Examiner

Satya B Sastri

Applicant(s)

BAIR ET AL.

Art Unit

1713

208

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 8/11/04.
2. ☒ The allowed claim(s) is/are 8, 17-21 and 32.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***EXAMINER'S COMMENT/REASONS FOR ALLOWANCE***

***Response to Amendment***

1. All previous rejections have been overcome by the amendment filed August 11, 2004 and the rejections are withdrawn. Claim objections cited in the prior office action are moot in view of the amendment. With the cancellation of *claims 1-7, 9-16, 22-31 and 33* in the amendment, *claims 8, 17-21 and 32* are now pending in the application.

***Reasons For Allowance***

2. *Claims 8, 17-21 and 32* are allowed.

3. The following is an Examiner's Statement of Reasons for Allowance:

The instant claims are allowable over prior art to Buentello et al. (US 2003/0052303 A1) and Kadano et al. (US 4,652,621).

The present claims are directed to a composition comprising a copolymer derived from monomeric units comprising carboxylate or carboxylate derivative, monomeric units comprising sulphate groups and monomeric units selected from the group of polyalkylene allyl ether, hydroxyethylene glycol methacrylate and methoxyethylene glycol methacrylate.

The prior art to Buentello et al. discloses water-soluble or water-dispersible polymers useful for controlling scale formation and deposition. The polymeric compositions comprise water-soluble or water-dispersible copolymers of ethylenically unsaturated monomers with

Art Unit: 1713

sulfate, phosphate, phosphite or carboxylic terminated polyalkylene oxide allyl ethers. The copolymers or terpolymers comprise monomer units E, which may be unsaturated carboxylic acid, sulfonic acid or phosphonic acid, the second monomer unit which comprise 1-100 oxyalkylene attached to an anionic group selected from SO<sub>3</sub>, PO<sub>3</sub> or COO and a cationic moiety not limited to Na, K, CA or NH<sub>4</sub>, and an optional third unsaturated monomeric unit.

The prior art to Kadano et al. is in regard to a water-soluble copolymer which is characterized by being an addition copolymer comprising 5-70 mole% of (a) an N-substituted  $\alpha,\beta$ -unsaturated dicarboxylic acid 5-membered ring imide having a sulfo or sulfoxy group-containing residue attached to the nitrogen atom, 30-95 mole% of (b) an  $\alpha,\beta$ -unsaturated aliphatic monocarboxylic acid and 0-50 mole% of (c) an  $\alpha,\beta$ -unsaturated dicarboxylic acid.

However, neither prior art of record teaches or suggests a composition comprising a copolymer comprising the three structural units disclosed in the instant claims. Therefore, the instantly claimed invention is deemed allowable over closest prior art of record as per said art neither anticipating nor rendering obvious, alone or in combination, the instantly claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Future Correspondence*


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri whose telephone number is 571-272-1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications. The unofficial direct fax phone number to the Examiner's desk is 571-273-1112.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
SATYA SASTRI

October 19, 2004

  
DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700